

STIGA VILLA

ROYAL

PRESIDENT

SENATOR

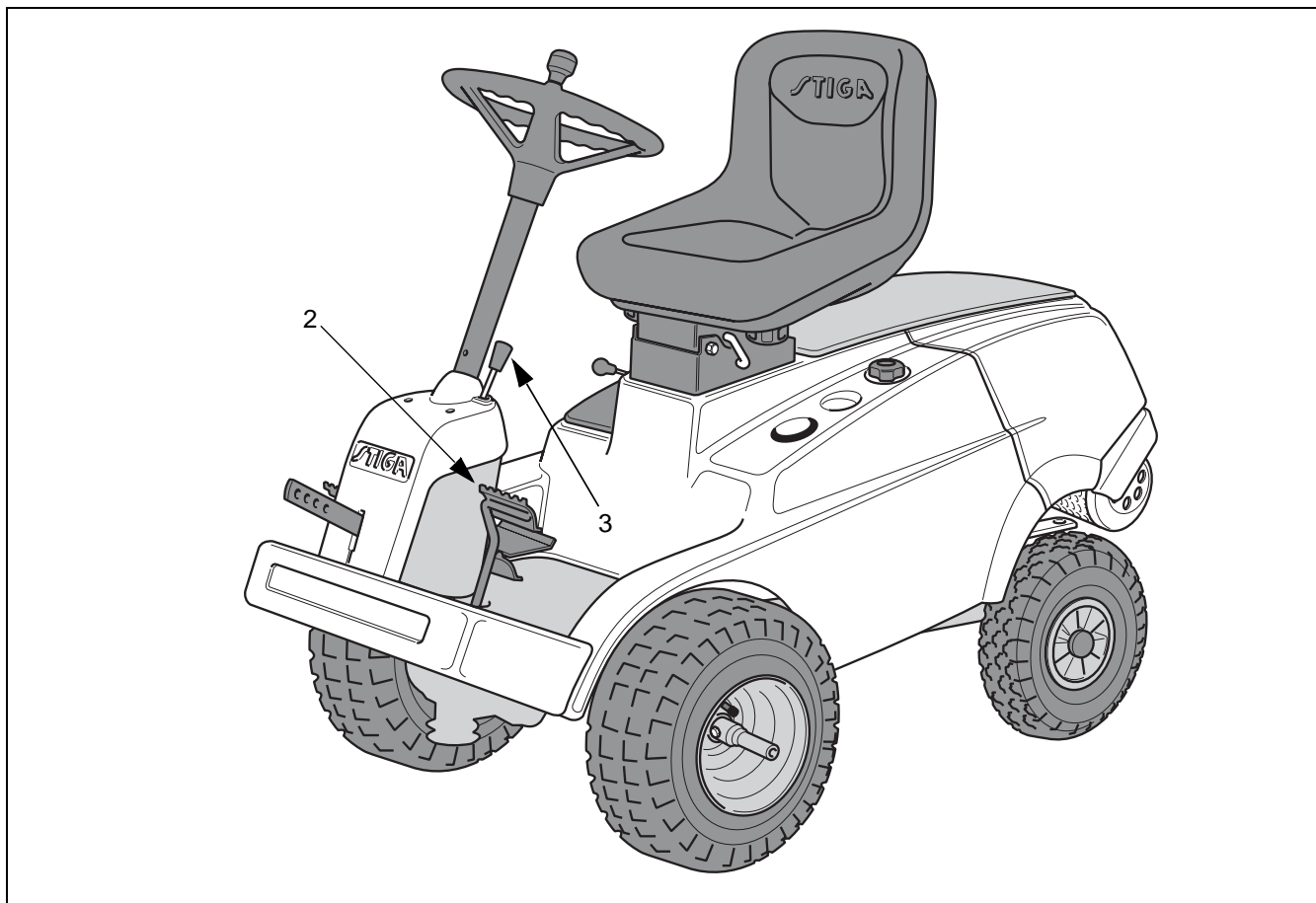
COMFORT

MASTER

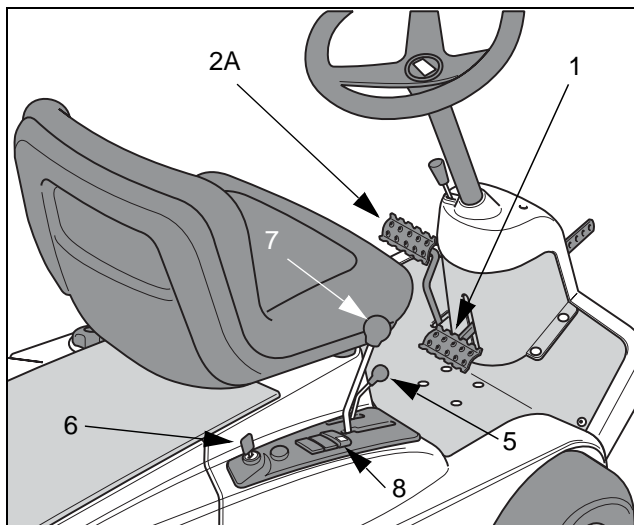
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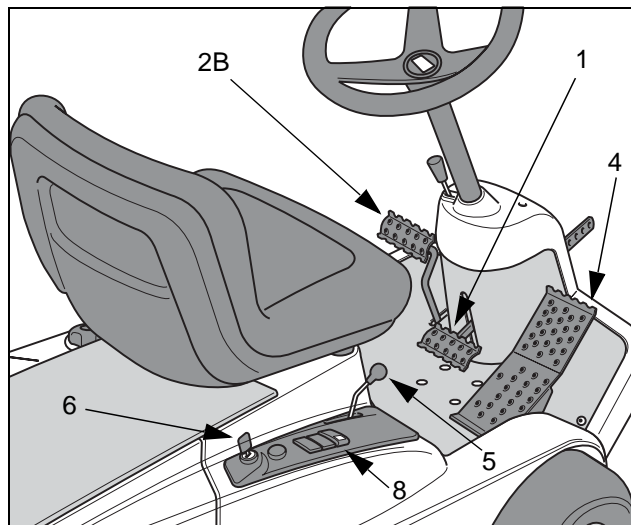
VILLA



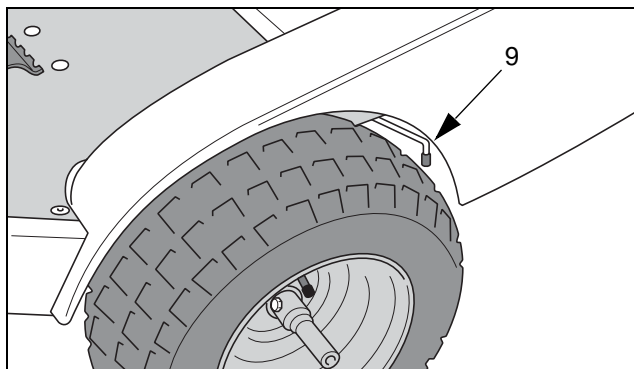
1.



2a. Master - Senator - Comfort

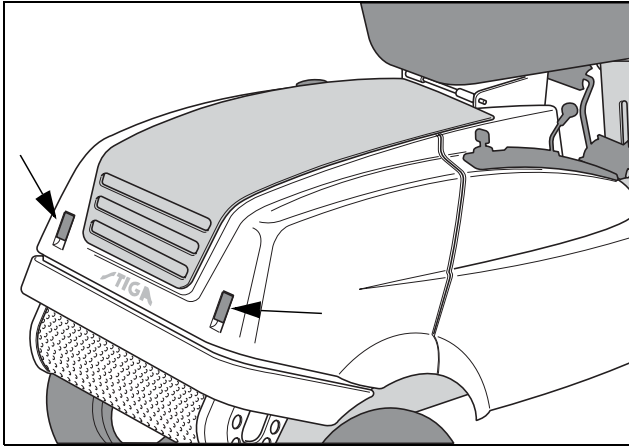


2b. President - Royal

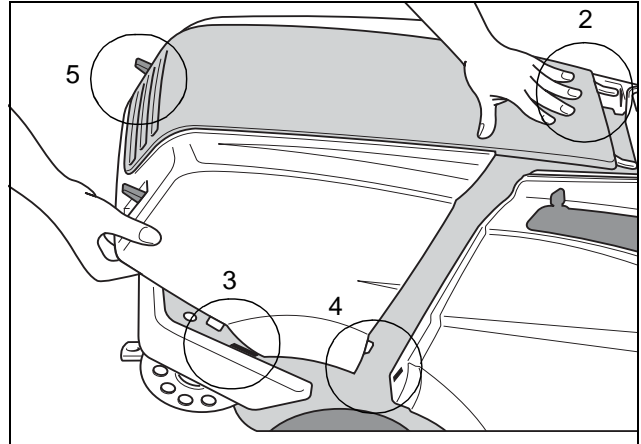


3. President - Royal

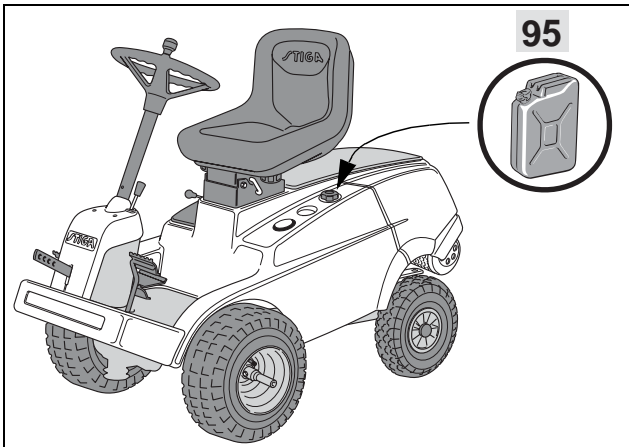
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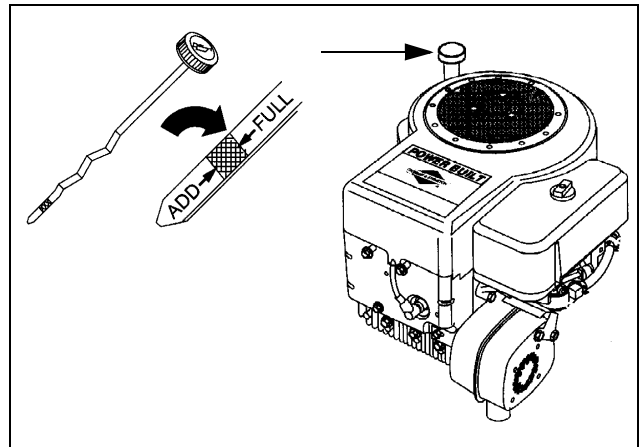
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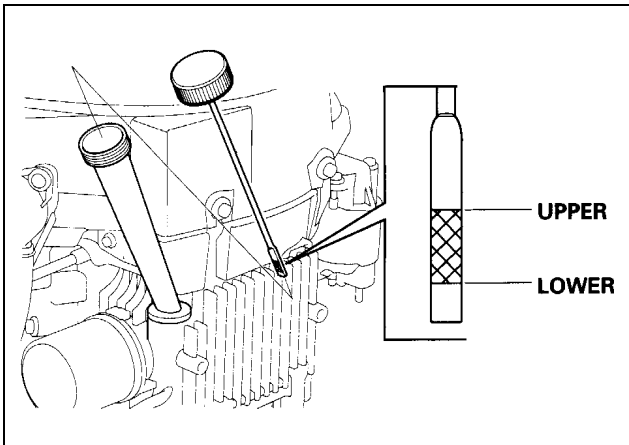
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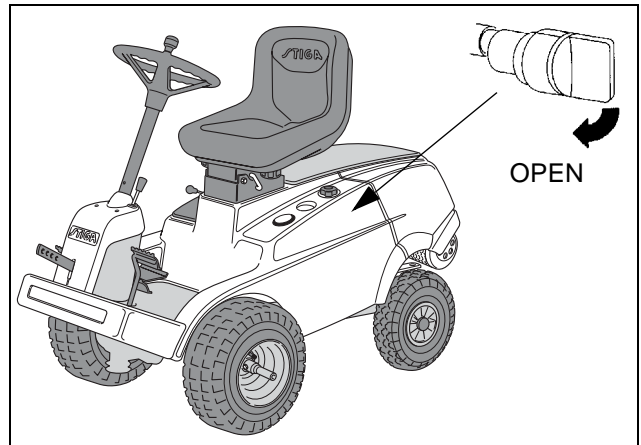
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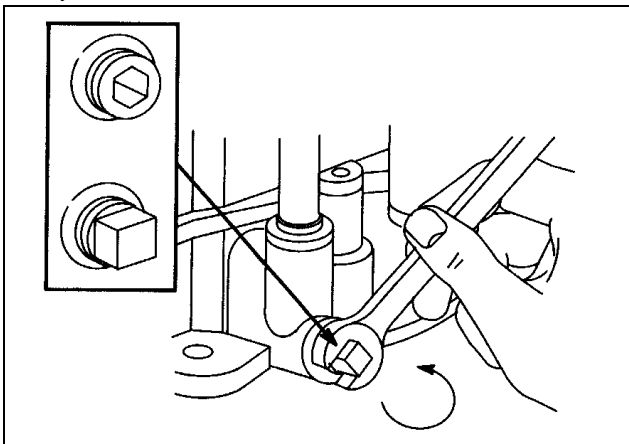
7. Master - Senator - Comfort - President



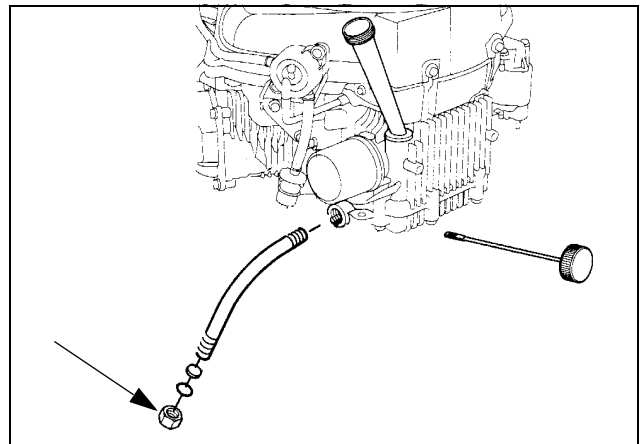
8. Royal



9.

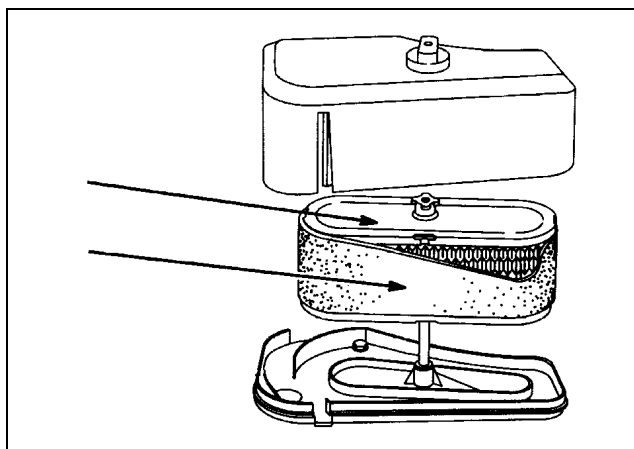


10. Master - Senator - Comfort - President

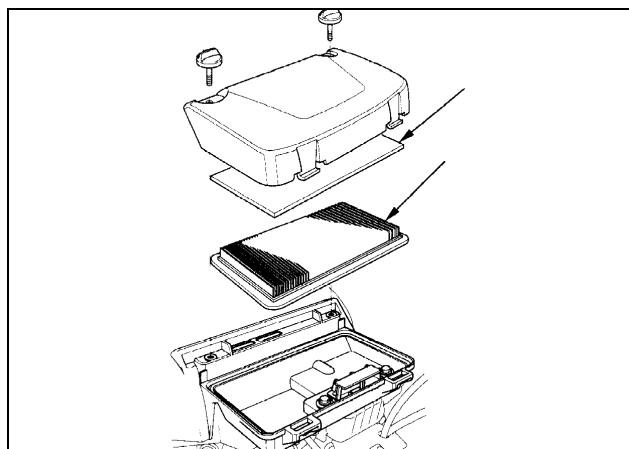


11. Royal

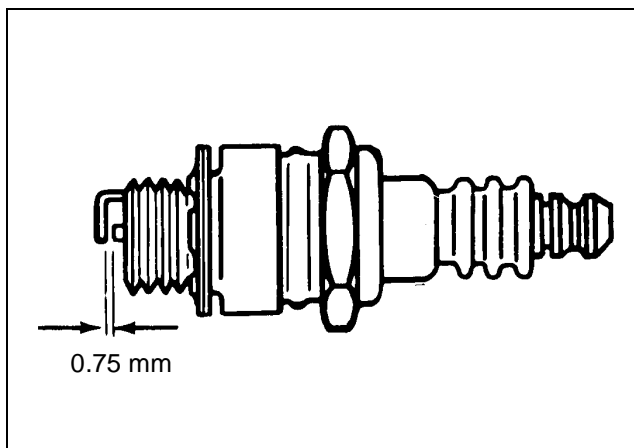
VILLA



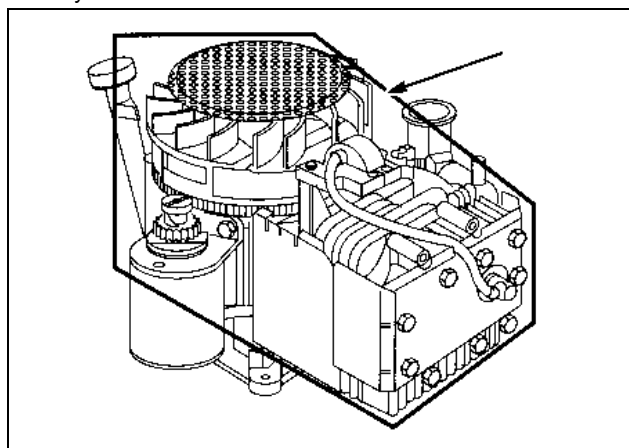
12. Master - Senator - Comfort - President



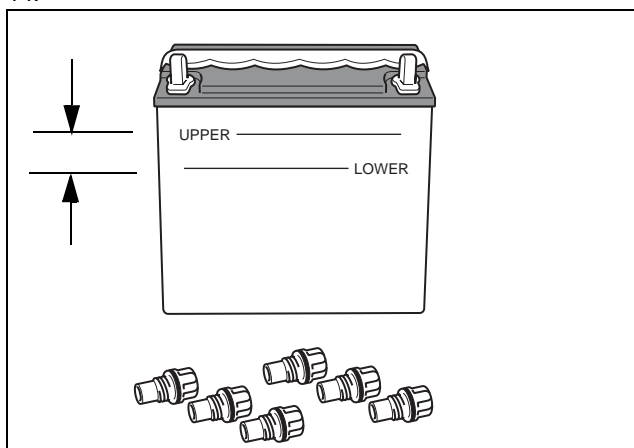
13. Royal



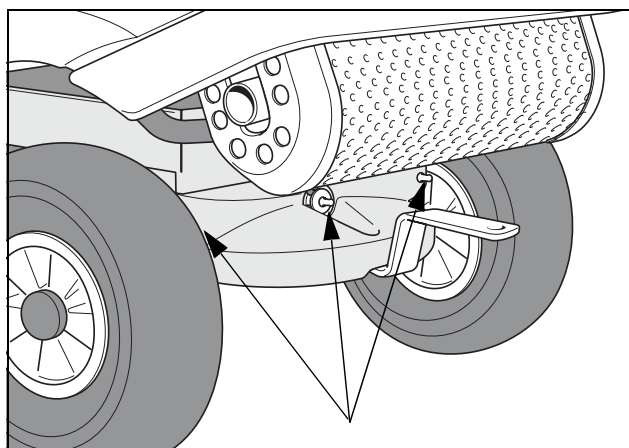
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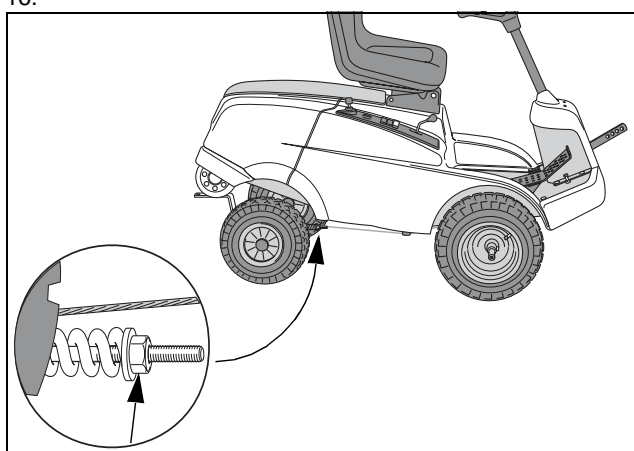
15. Master - Senator - Comfort - President



16.



17.



18.

GENERAL



This symbol means **WARNING. Personal injury and/or damage to property can occur if the instructions are not followed carefully.**



You must read these operating instructions and the enclosed pamphlet **"SAFETY INSTRUCTIONS"** carefully before starting the machine.

SYMBOLS

The following symbols are displayed on the machine to remind you of the care and attention required when using the machine.

The symbols mean:



Warning!
Read the instruction book and safety manual before using the machine.



Warning!
Beware of objects being flung out. Keep spectators away.



Warning!
Always use hearing protectors.



Warning!
This machine is not intended to be driven on public roads.



Warning!
The machine, equipped with original accessories, must not be driven in any direction on slopes with a gradient of more than 10°.



Warning!
Risk for burn injuries. Do not touch the silencer.

CONTROLS AND INSTRUMENTS

Items 1 - 9, see figures 1 - 3.

1. ACCESSORY LIFTER

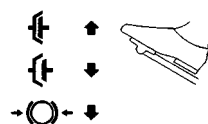
Pedal for lifting front-mounted accessories to transport position.

To lift up the accessory, press down the pedal as far as it goes. Release the pedal and the accessory lifter will now be locked in the lift position.

To lower the accessory, press the pedal to release the lock. Lower the accessory lifter to working position by slowly lifting your foot from the pedal.

2A. SERVICE BRAKE/CLUTCH (Master - Senator - Comfort)

Pedal which combines both the service brake and clutch. Three positions:



1. Pedal released – forward drive engaged. The machine starts to move if a gear is engaged. The service brake is not activated.

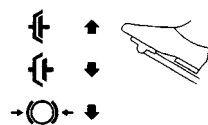
2. Pedal pressed halfway down – front drive disengaged, it is not possible to change gear. The service brake is not activated.

3. Pedal pressed fully down – front drive disengaged The service brake is fully activated.

NOTE! Do not regulate the speed by slipping the clutch. Use a suitable gear instead to obtain the right speed.

2B. SERVICE BRAKE (President - Royal)

Pedal which activates the machine's brake system. Three positions:



1. Pedal released – forward drive not engaged.

2. Pedal pressed halfway – front drive disengaged The service brake is not activated.

3. Pedal pressed fully down – front drive disengaged The service brake is fully activated.

3. PARKING BRAKE

Inhibitor to lock the brake pedal in depressed position.



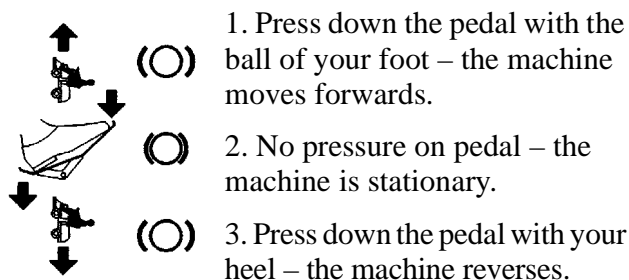
Press down the brake pedal fully. Move the inhibitor to the right and then release the brake pedal.

The parking brake is released by pressing the brake pedal. The spring-loaded inhibitor slides to one side.

Make sure that the parking brake is released when driving.

4. DRIVE PEDAL (President - Royal)

Pedal which activates the variable transmission.



The speed is regulated with the drive pedal. The more pressure applied on the pedal, the faster the machine goes.

5. THROTTLE/CHOKE CONTROL

Control for setting the engine speed and to choke the engine for cold start.



1. Choke – for starting a cold engine. The choke is located in the top of the groove.



2. Full throttle – when the machine is in operation, full throttle should always be used.



3. Idling.

6. IGNITION LOCK

Ignition lock used to start and stop the engine. Four positions:



1. Stop position – the engine is short-circuited. The key can be removed.



2/3. Operating position.



4. Start position – the electric start motor is activated when the key is turned to the spring-loaded start position. Once the engine has started, let the key return to operating position 2/3.

7. GEAR LEVER (Master - Senator - Comfort)

Lever for selecting one of five forward gears in the gearbox (1-2-3-4-5), neutral (N), or reverse (R).

The clutch pedal must be depressed when changing gear.

NOTE! Make sure that the machine is standing completely still before changing from reverse to forward gear, or vice versa. If a gear does not engage immediately, release the clutch and then press it in again. Engage the gear again. Never force a gear in!

8. POWER TAKE-OFF

Switch for engaging and disengaging the electromagnetic power take-off for driving front-mounted accessories. Two positions:



1. Press in the right side of the switch – the power take-off engages. The symbol lights up.

2. Press in the left part of the switch – the power take-off disengages.

9. DISENGAGING LEVER (President - Royal)

Lever for disengaging the variable transmission. Enables the machine to be moved by hand without using the engine. Two positions:



1. Lever pressed in – the transmission is engaged for normal use.

2. Lever pulled out – the transmission is disengaged. The machine can be moved by hand.

The machine must not be towed long distances or at high speed. This can damage the transmission.

AREAS OF USE

The machine must only be used for the following tasks with the indicated STIGA original accessories:

1. Mowing

With mower deck 13-2929 (92M) or 13-2930 (107M).

2. Grass clippings and leaves collection

With towed collector 13-1978 (30") or 13-1950 (42").

3. Grass and leaves transport

With dump cart 13-1979 (Standard), 13-1988 (Maxi) or 13-1992 (Combi).

The towing unit must only be loaded with a vertical force of max. 100 N.

The pulling force on the tow unit from towed accessories must be max. 500 N.

NOTE! Before using a trailer – contact your insurance company.

NOTE! This machine is not intended to be driven on public roads.

STARTING AND OPERATING

ENGINE CASING

The engine casing must be removed to inspect and maintain the engine and battery. Removing:

1. Lift up the two catches on the rear edge (fig. 4).
2. First pull the engine casing backwards slightly. Then lift it off.

Fitting:

1. Tilt the seat forward.
2. Align the casing's top front pegs to the recesses in the front of the engine casing (fig. 5). Do not push the pegs in yet (see item 4 below).
3. Place the casing's bottom pegs in the groove in the shock absorber.
4. Guide in the two side pegs in the groove in the front engine casing. Now press forward the complete casing.
5. Finally, push down the two catches.



The machine must not be used without the engine casing fitted. Risk for burn injuries and pinch injuries.

FILLING THE FUEL TANK

Always use clean unleaded petrol. Never use oil-mixed 2-stroke petrol (fig. 6).

NOTE! Bear in mind that standard unleaded petrol is perishable. Never purchase more than what you can use within 30 days.

Environmentally-friendly petrol is a good choice of petrol. This type of petrol has a composition that is less hazardous for people and nature.



Petrol is highly inflammable. Store petrol in specially made containers for this purpose.



Only fill up with petrol outdoors, and never smoke when filling. Fill up with petrol before starting the engine. Never remove the filler cap or fill up with petrol when the engine is running or still warm.

Never completely fill the fuel tank. Leave an empty space (= at least the entire filler tube plus 1 - 2 cm at the top of the tank) to allow the petrol to expand when it warms up without overflowing.

CHECKING THE OIL LEVEL (Master - Senator - Comfort - President)

On delivery, the crankcase is filled with SAE 30 oil.

Check the oil level every time before using to ensure that it is correct. The machine should be standing on level ground.



Wipe clean round the oil dipstick. Release it and pull out. Wipe, push down fully *and screw it back in.*

Unscrew it and pull out again. Check the oil level. Top up with oil to the "FULL" mark if the oil level is below this (fig. 7).

CHECKING THE OIL LEVEL (Royal)

On delivery, the crankcase is filled with SAE oil 10W-40.

Check the oil level every time before using to ensure that it is correct. The machine should be standing on level ground.



Wipe clean round the oil dipstick. Release it and pull out. Wipe, push down fully *without screwing it back in.*

Pull out again and check the oil level. Top up with oil to the "FULL" mark if the oil level is below this (fig. 8).

SAFETY SYSTEM

This machine is equipped with a safety system that consists of:

- a switch at the gear lever (only Master, Senator, Comfort).
- a switch at the brake pedal (only President, Royal).
- a switch in the seat mounting (all).

In order to start the machine, the following are necessary:

- gear lever in neutral (only Master, Senator, Comfort).
- brake pedal pressed down.
- driver sitting on the seat.



Always check the operation of the safety system before using the machine!

With the *engine running* and the *driver sitting* on the seat, check as follows:

- select a gear, and lift your weight off the seat – the engine should stop (only Master, Senator, Comfort).
- press the drive pedal so that the machine starts to move, and then release the drive pedal – the machine should stop (applies to President, Royal).
- engage the power take-off, lift your weight off the seat – the power take-off should disengage



The machine must not be used if the safety system does not work! Take the machine to a service agent for inspection.

STARTING

1. Open the fuel cock (fig. 9).
 2. Check that the spark plug cable is in place.
 3. Check that the power take-off is disengaged.
 - 4a. Master - Senator - Comfort:
Put the gear lever in neutral.
 - 4b. President - Royal:
Do not keep your foot on the drive pedal.
 5. Starting cold engine – put the throttle control in the choke position. Starting warm engine – put the throttle control at full throttle (approx. 1 cm behind the choke position).
 6. Press down the brake pedal fully.
 7. Turn the starter key and start the engine.
 8. Once the engine has started, move the throttle control gradually to full throttle if the choke has been used.
 9. When starting a cold engine let the engine run for a few minutes before using the machine. This allows the oil to warm up.
- When in use, always run the engine at full throttle.

STOPPING

Disengage the power take-off. Apply the parking brake.

Allow the engine to idle for 1 - 2 minutes. Stop the engine by turning off the starter key.

Shut off the fuel cock. This is particularly important if the machine is to be transported on a trailer for example.



If the machine is left unattended, remove the lead from the spark plug. Remove also the starter key.



The engine can be very hot immediately after the engine is stopped. Do not touch the silencer, cylinder or cooling flanges to avoid burn injuries.

OPERATING TIPS

Make sure that there is the correct quantity of oil in the engine when driving on slopes (oil level at "FULL").



Be careful when driving on slopes. No sudden starting or stopping when moving up or down a slope. Never drive across a slope. Drive from the top and down, or from the bottom and up.



When going down slopes greater than 20° the rear wheels can lift from the ground. However, the mower deck prevents the machine from tipping over forwards.



The machine, equipped with original accessories, must not be driven in any direction on slopes with a gradient of more than 10°.



Reduce speed on slopes and when making sharp turns to prevent the machine from tipping over, and to make sure you do not lose control of the machine.



Do not turn the steering wheel to full lock when driving in top gear and at full throttle. The machine can tip over.



Keep hands and fingers away from the seat mounting. Risk of pinch injuries. Never operate the machine without the engine casing.



Never drive with the mower deck engaged and lifted up. This will damage the drive belt to the unit.

SERVICE AND MAINTENANCE

SERVICE PROGRAMME

STIGA's Service Programme should be followed to keep the machine in good condition in terms of reliability and operational safety, and from an environmental perspective.

The contents of this programme can be found in the attached service log.

We recommend that an authorised workshop carries out every service. This guarantees that the work is carried out by trained personnel and with original spare parts.

The service log should be stamped at every service. A "fully stamped" service log is a valuable document that improves the machine's second-hand value.

PREPARATIONS

Unless otherwise stated, all service and maintenance should be performed when the machine is stationary and with the engine switched off.



Always apply the parking brake to prevent the machine from rolling.



To prevent starting the engine involuntarily, always release the spark plug lead from the spark plug and earth it. Remove the minus lead from the battery.

CLEANING



To reduce the risk of fire, keep the engine, silencer/catalytic converter, battery and fuel tank, free from grass, leaves and oil.



To reduce the risk of fire, regularly check the machine for oil and/or fuel leakage.

When washing the machine with water under high pressure, do not point the jet directly at the transmission.

Do not point the jet at the engine. Use a brush or compressed air to clean it.

CHANGING THE OIL (Master - Senator - Comfort - President)

Change the engine oil for the first time after 5 hours of operation, and then after every 50 hours of operation or once per season.

Change the oil more often, every 25 hours of operation or at least once per season, if the engine has to operate under very demanding conditions or if the ambient temperature is high.

Change the oil when the engine is warm. Use a good grade of oil (service grade SF, SG or SH).



The engine oil may be very hot if it is drained off directly after switching off the engine. For this reason allow the engine to cool for a few minutes before draining the oil.

Unscrew the oil drain plug (fig. 10). It is located on the left side of the engine (machine seen from rear).

Let the oil run out into a collection vessel. Then take the oil to a recycling station. Avoid spilling oil on the V-belts.

Screw tight the oil drain plug.

Take out the oil dipstick and fill up with new oil to the "FULL" mark.

Oil capacity:

Master – 1.1 litre

Senator. Comfort, President – 1.4 litre

Oil type, summertime ($> 4^{\circ}\text{C}$): SAE -30

(SAE 10W-30 can also be used. The oil consumption may increase somewhat if 10W-30 is used.

Check the oil level more regularly if this type of oil is used.

Oil type, winter ($< 4^{\circ}\text{C}$): SAE 5W-30

(if this oil is not available, use SAE 10W-30)

Do not use any additives with the oil.

Do not overfill. This can result in the engine overheating.

CHANGING THE OIL (Royal)

Change the engine oil for the first time after 20 hours of operation (or during the first month), and then after every 100 hours of operation or every 6 months.

Change the oil when the engine is warm. Use a good grade of oil (service grade SF, SG or SH).



The engine oil may be very hot if it is drained off directly after switching off the engine. For this reason allow the engine to cool for a few minutes before draining the oil.

Unscrew the oil drain plug in the end of the tube (fig. 11).

Let the oil run out into a collection vessel. Then take the oil to a recycling station. Avoid spilling oil on the V-belts.

Screw tight the oil drain plug. Make sure that the fibre gasket and O-ring inside the plug are undamaged and in the correct position.

Take out the oil dipstick and fill up with new oil to the "FULL" mark.

Oil capacity:

Royal – 0.9 litre (= when changing; total engine capacity is 1.15 litre).

Oil type for all seasons: SAE 10W-40.

For very low temperatures (< -20° C), use SAE 5W-30.

Do not use any additives with the oil.

Do not overfill. This can result in the engine overheating.

AIR FILTER - ENGINE

Master - Senator - Comfort - President:

Clean the pre-filter every year or after every 25 operating hours, whichever comes first.

Clean the paper filter every year or every 100 operating hours, whichever comes first.

Royal:

Clean the air filter (pre-filter and paper filter) every 3 months or after every 50 operating hours, whichever comes first. Change the paper filter every year or every 200 operating hours.

All models:

NOTE! Clean both filters more often if the machine is used in dusty conditions.

1. Remove the air filter cover (fig. 12 - 13).

2. Dismantle the paper filter and pre-filter (= foam plastic filter). Make sure that no dirt gets into the carburettor. Clean the air filter housing.

3. Wash the pre-filter in liquid detergent and water. Squeeze dry. Pour a little on the filter and squeeze in the oil.

4. Clean the paper filter as follows: Tap it lightly against a flat surface. If the filter is very dirty, replace it.

5. Assemble in the reverse order.

Petroleum-based solvents such as kerosene must not be used to clean the paper filter. These solvents will damage the filter.

Do not use compressed air to clean the paper filter. The paper filter must not be oiled.

SPARK PLUG

Change the spark plug after every 100 hours of operation or every season. In the accessory bag there is a spark plug sleeve A and torsion pin B to change the spark plug.

The engine manufacturer recommends:

Master - Senator - Comfort - President: Champion J19LM.

Royal: NGK BPR5ES or DENSO W16EPR-U.

Correct electrode gap: 0.75 mm (fig. 14).

COOLING AIR INTAKE - ENGINE (Master - Senator - Comfort - President)

The engine is air-cooled. A blocked cooling system can damage the engine. The engine should be cleaned every 100 hours of operation or at least once a year.

Remove the fan casing. Clean the cooling fins on the cylinder, the fan and the rotating protective grille (fig. 15). Clean more frequently if moving dry grass.

BATTERY

Check the acid level regularly.

The acid level should lie between the "UPPER" and "LOWER" markings on the battery (fig. 16). When adjusting the acid level, only use distilled water.



The battery acid is extremely corrosive and can cause burns on the skin and clothing. Use rubber gloves and protect your eyes with protective glasses. Avoid inhaling the acid fumes.



Do not tip the battery enough for battery acid to run out onto your hands and clothing. If this should happen, flush with lots of water.

If the battery terminals are coated with oxide, they should be cleaned. Clean the battery terminals with a wire brush and grease them.

LUBRICATION - CHASSIS

The machine has three grease nipples on the rear axle, which should be lubricated with universal grease after every 25 operating hours (fig. 17).

Lubricate the steering cables with universal grease a couple of times per season.

Lubricate the plastic bearings with universal grease a couple of times per season.

Lubricate the tension arms joints with engine oil a couple of times per season.

Drop a little engine oil in both ends of the throttle control cable a couple of times per season.

Master - Senator - Comfort:

The transmission is filled with oil (SAE 80W-90) on delivery from the factory. If it is not opened (which must only be done by a specialist) it should not normally need topping up with oil.

STEERING CABLES

Adjust the steering cables for the first time after 2 – 3 hours of operation, and then after every 25 hours of operation.

Tension the steering cables by tightening up the nuts (fig. 18). Important! The “screw ends” of the steering cables should be held firmly during the adjustment so that the cables are not twisted. Use an adjustable wrench or the like, inserting it in the key handles in the ends of the screws.

Tension the cables until they are no longer slack.

Do not tension the cables too hard. This can cause unnecessary wear on the steering cables and pulleys etc.

PATENT – PROTECTION OF DESIGNS

This machine, or parts thereof, is protected by the following patents and protection of designs:

9901091-0 (SE), 9901730-3 (SE), SE00/00577 (PCT), SE00/00895 (PCT), 4.537.581 (US).

00 1080 (SE).

STIGA reserves the right to modify the product without giving any prior notice.